09207U 90E7S0

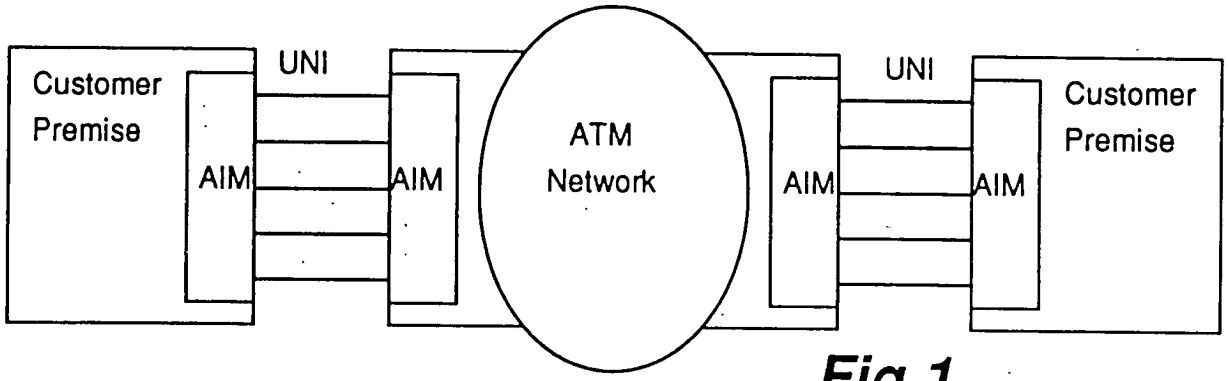


Fig 1

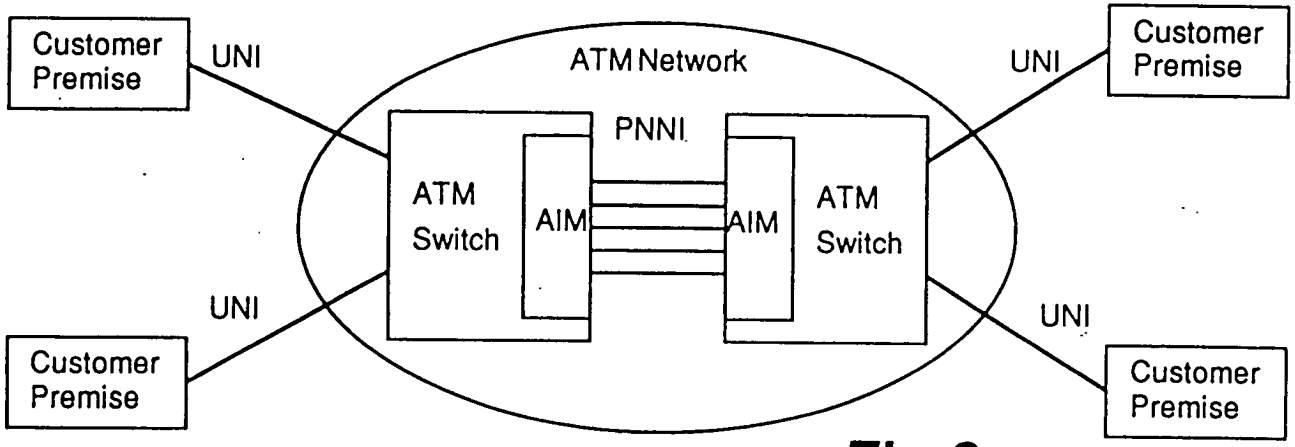


Fig 2

09510107 960501

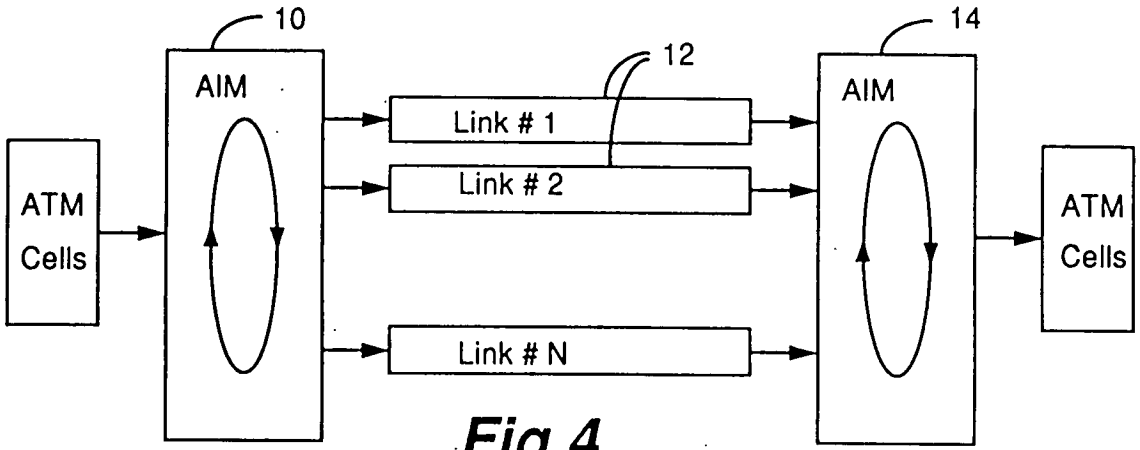


Fig 4

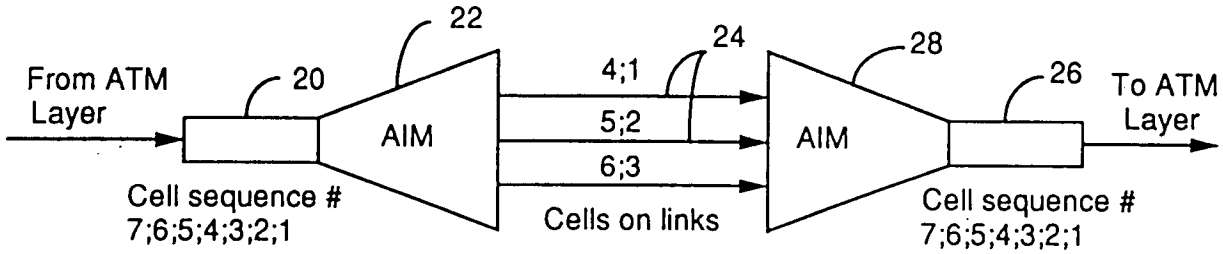
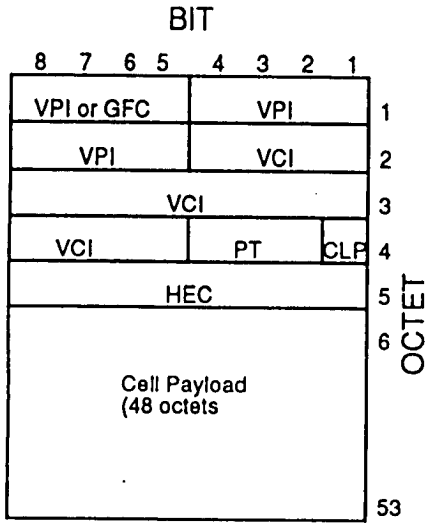


Fig 8

6,930,980 B2



GFC: General Flow Control
VPI: Virtual Path Identifier
VCI: Virtual Channel Identifier
PT: Payload Type
CLP: Cell Loss Priority
HEC: Header Error Check

Fig 3

Cell Purpose	Octet 1	Octet 2	Octet 3	Octet 4	Octet 5
Idle cell identification	00000000	00000000	00000000	00000001	01010010
Cell-based interface F1 OAM cell	00000000	00000000	00000000	00000011	01011100
Cell-based interface F3 OAM cell	00000000	00000000	00000000	00001001	01101000

Fig 5

Octet 1	Octet 2	Octet 3	Octet 4	Octet 5 (HEC)
00000000	00000000	00000000	00001111	11001011

Fig 6

OCTET	ALLOCATION
1	AIM-RDI
2	AIMFERR
3	AIMCSN(MSB)
4	AIMCSN(LSB)
5	R
6	R
7	R
8	R
9	R
10	R
11	R
12	R
13	R
14	R
15	R
16	R
17	R
18	R
19	R
20	R
21	R
22	R
23	R
45	R
46	R
47	R
48	CEC (10)

MSB: Most Significant Byte

LSB: Least Significant Byte

FIG 7

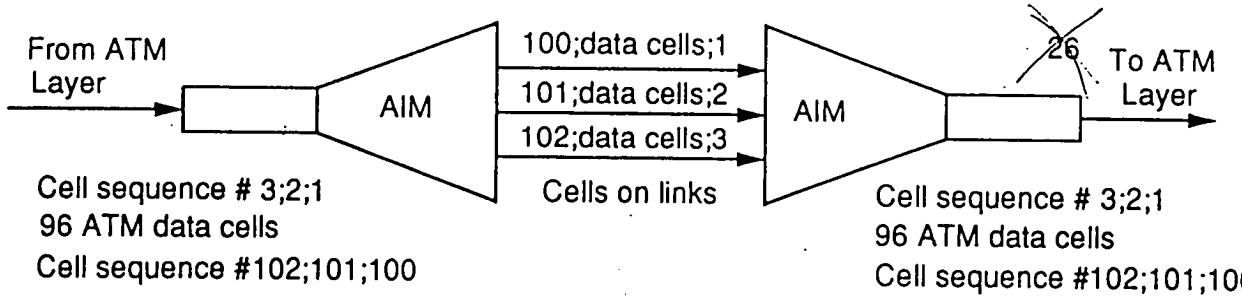

From ATM Layer
AIM
100;data cells;1
101;data cells;2
102;data cells;3
Cells on links
AIM
26
To ATM Layer
Cell sequence # 3;2;1
96 ATM data cells
Cell sequence #102;101;100
Cell sequence # 3;2;1
96 ATM data cells
Cell sequence #102;101;100

Fig 9

OCTET	FIELD
1-5	ATM Cell Header
6	IMA Label
7	Cell ID, Link ID
8	IMA Frame Sequence Number
9	ICP Cell Offset
10	Link Stuff Indication
11	Status & Control Change Indication
12	Tx IMA ID
13	Rx IMA ID
14	Group Status & Control
15	Tx Test Control
16	Tx Test Pattern
17	Rx Test Pattern
18	Link 0 Information
19	Link 1 Information
20-49	Link 2-31 Information
50-51	Unused
52-53	CRC-10

FIG 10

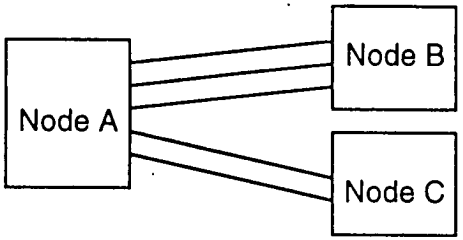

Node A
Node B
Node C

Fig 11

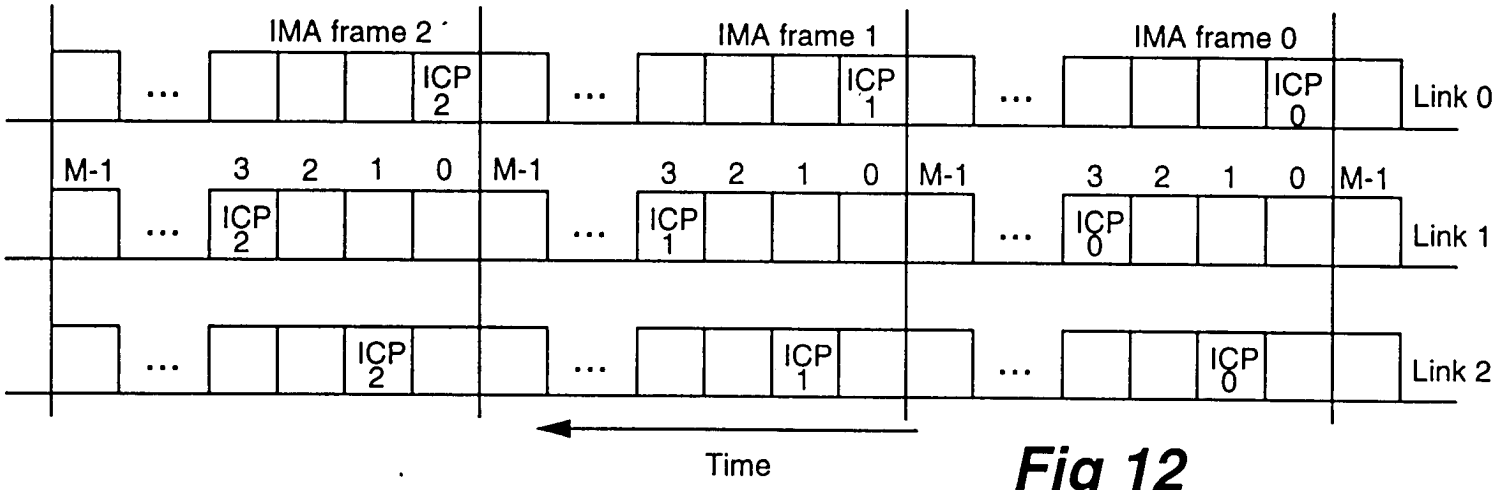

IMA frame 2
IMA frame 1
IMA frame 0
ICP 2
ICP 1
ICP 0
Link 0
M-1
3 2 1 0
Link 1
Link 2
Time

Fig 12

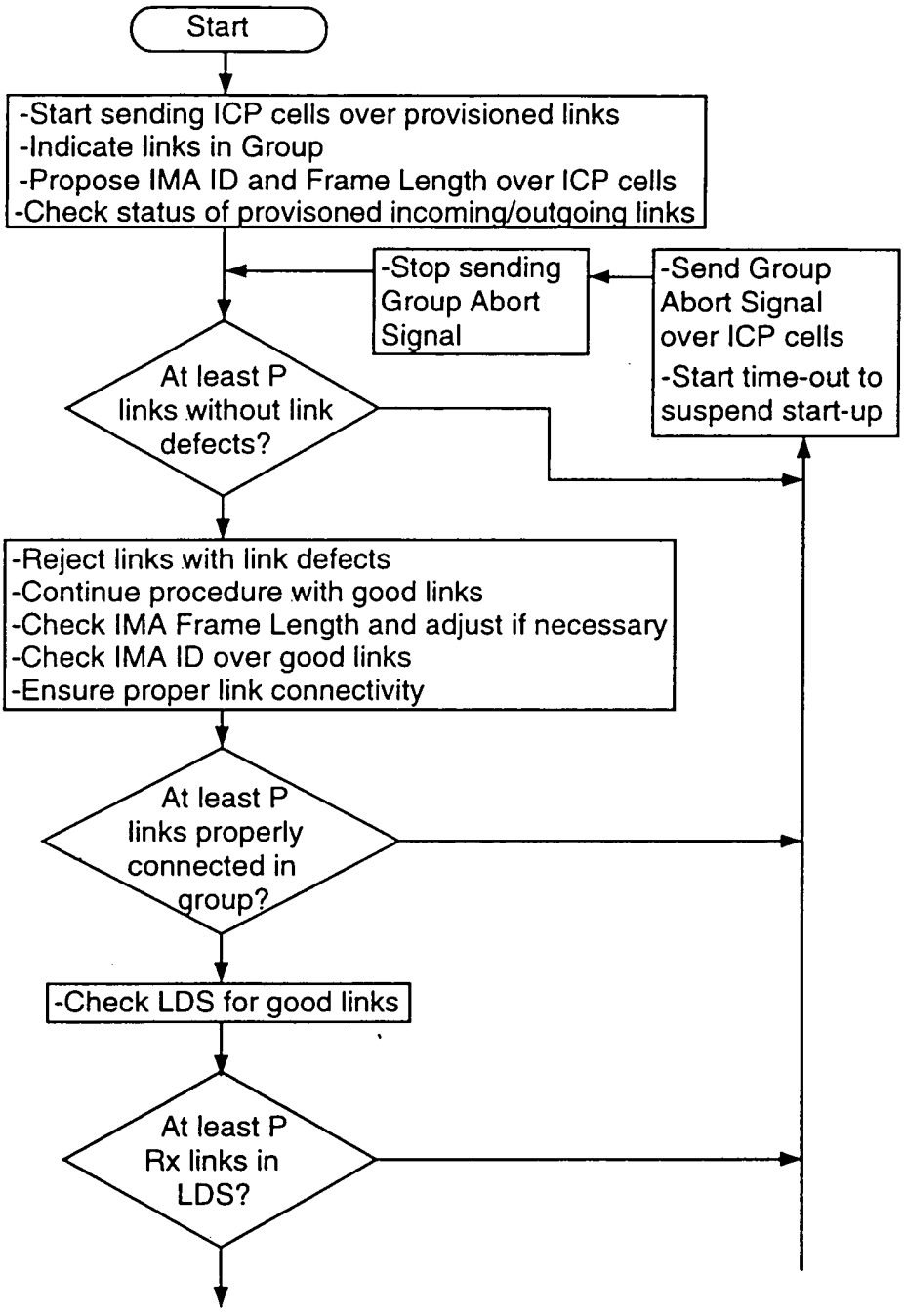

Start
-Start sending ICP cells over provisioned links
-Indicate links in Group
-Propose IMA ID and Frame Length over ICP cells
-Check status of provisoned incoming/outgoing links
-Stop sending Group Abort Signal
-Send Group Abort Signal over ICP cells
-Start time-out to suspend start-up
At least P links without link defects?
-Reject links with link defects
-Continue procedure with good links
-Check IMA Frame Length and adjust if necessary
-Check IMA ID over good links
-Ensure proper link connectivity
At least P links properly connected in group?
-Check LDS for good links
At least P Rx links in LDS?

Fig 13 a

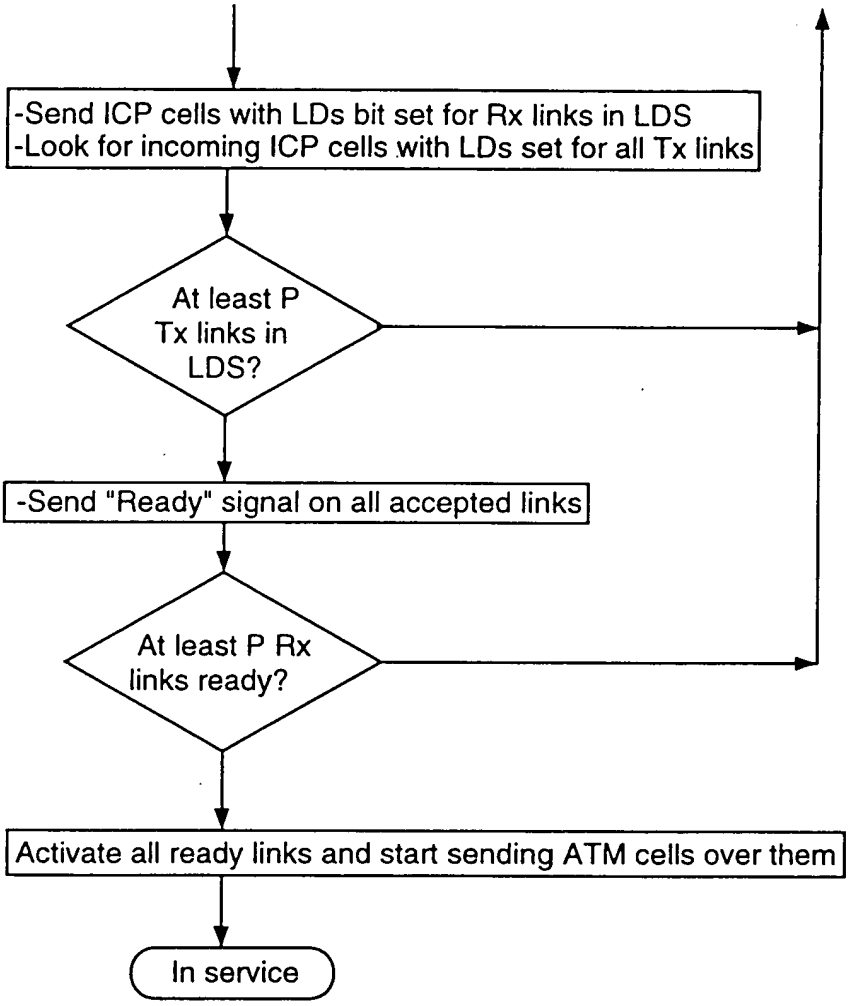


Fig 13 b

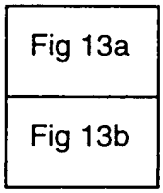


Fig 14

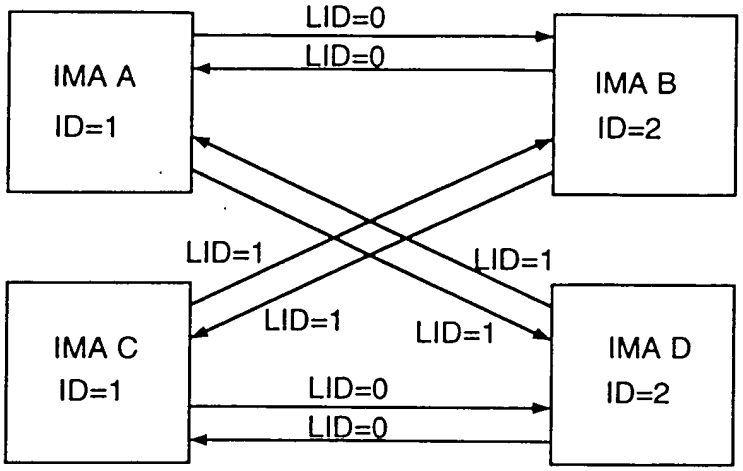


Fig 15

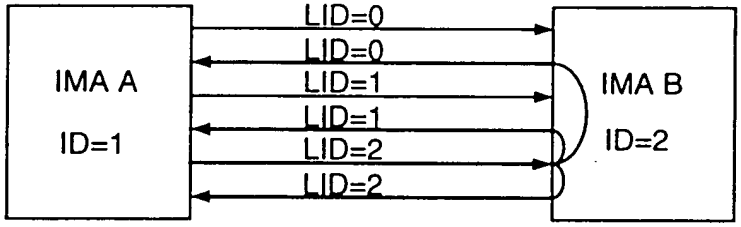


Fig 17

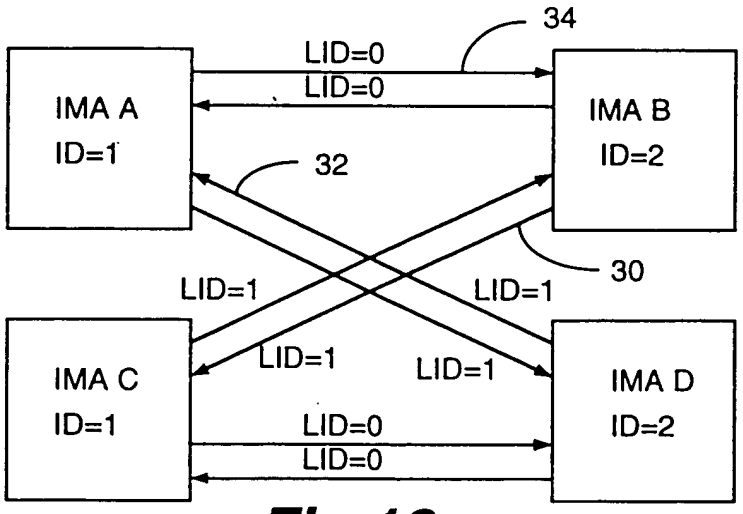


Fig 18

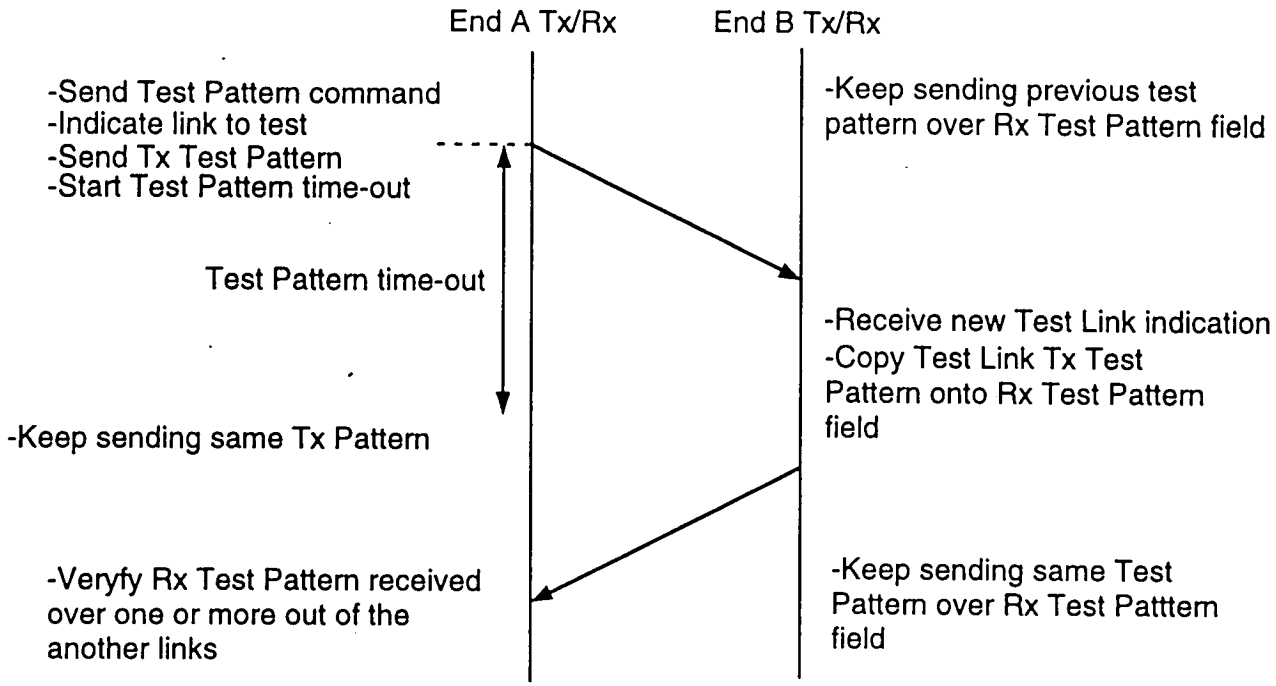

End A Tx/Rx
End B Tx/Rx
-Send Test Pattern command
-Indicate link to test
-Send Tx Test Pattern
-Start Test Pattern time-out
-Keep sending previous test pattern over Rx Test Pattern field
Test Pattern time-out
-Receive new Test Link indication
-Copy Test Link Tx Test Pattern onto Rx Test Pattern field
-Keep sending same Tx Pattern
-Veryfy Rx Test Pattern received over one or more out of the another links
-Keep sending same Test Pattern over Rx Test Patttern field

Fig 16

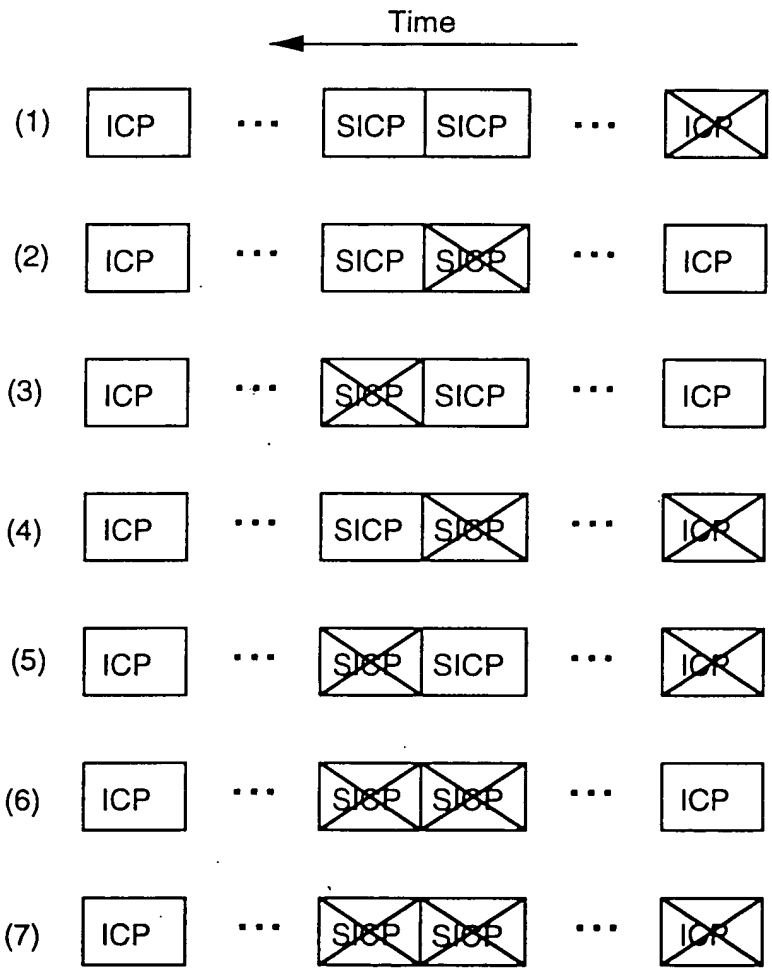

Time
(1)
ICP
SICP
SICP
ICP
(2)
ICP
SICP
SICP
ICP
(3)
ICP
SICP
SICP
ICP
(4)
ICP
SICP
SICP
ICP
(5)
ICP
SICP
SICP
ICP
(6)
ICP
SICP
SICP
ICP
(7)
ICP
SICP
SICP
ICP

Fig 19